Heterotopic pregnancy with successful pregnancy outcome

Nasreen Noor,
Imam Bano,
Shazia Parveen
Department of Obstetrics and Gynaecology, J.N.M.C, A.M.U, Aligarh, Uttar Pradesh, India

Address for correspondence:
Dr. Nasreen Noor,
6/1216 Sarai Rehman,
Near G.T. Road, Aligarh,
Uttar Pradesh - 202002, India.
E-mail: nasreen_71@rediffmail.com

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ABSTRACT

A heterotopic pregnancy is a rare complication of pregnancy, in which both extra-uterine and intrauterine gestation occur simultaneously. We hereby report a case of ruptured heterotopic pregnancy presenting at 6weeks of gestation and was managed with immediate laparatomy. The intrauterine pregnancy course was uneventful with delivery of a healthy baby at term by Caesarean section.

KEY WORDS: Adnexal mass, assisted reproduction techniques, heterotopic pregnancy

INTRODUCTION

A heterotopic pregnancy is a rare complication of pregnancy, in which both extra-uterine and intrauterine gestation occur simultaneously. The reported incidence is 0.6-2.5/10,000 pregnancies. There is a significant increase in the incidence of heterotopic pregnancy in women undergoing ovulation induction. An even greater incidence of heterotopic pregnancy is reported in pregnancies following assisted reproduction techniques such as *in vitro* Fertilization (IVF) and Gamete Intra-Fallopian Transfer (GIFT). In natural cycles the incidence is still rare and unexpected. In general population the major risk factors for heterotopic pregnancy are the same as those for ectopic pregnancy. For women in an assisted reproduction techniques there are additional factors, a higher incidence of multiple ovulation, a higher incidence of tubal malformation, tubal damage and technical factors in embryo transfer which may increase the risk for ectopic and heterotopic pregnancy. We report a case of ruptured heterotopic pregnancy presenting at 6 weeks of gestation and was managed with immediate laparatomy.The intrauterine pregnancy course was uneventful with delivery of a healthy baby at term by Caesarean section.

CASE REPORT

A 23-year-old primigravida, was referred to our hospital with the history of cessation of menses of 6 weeks and intermittent pain lower abdomen of 7-days duration. She had no prior history of fertility treatment or pelvic inflammatory disease (PID). On admission her vitals were P/R 110/min, B.P 90/40 mmHg, afebrile and R/R 18/min. On per abdomen examination suprapubic tenderness was present with mild distension. Pelvic examination revealed that she had an enlarged uterus corresponding to 6-8 weeks size of gestation with closed cervix and a tender right adenexa. Her hemoglobin level was 8.0 gm/dl and urine for pregnancy test was positive. Transabdominal ultrasonography showed moderate amount of fluid in the peritoneal cavity with a live intrauterine gestation of about 6 weeks.

A complex right adenexal mass was present and left adenexa seems to be normal. Provisional diagnosis of a heterotopic pregnancy with ruptured right-sided ectopic pregnancy was made in view of clinical history, moderate amount of free intraperitoneal fluid. Patient underwent emergency laparatomy. There was ruptured right-sided tubal pregnancy with hemoperitoneum of 1.5 litres, right-sided partial salpingectomy was performed, the intrauterine live gestation was allowed to continue. The patient delivered a healthy live baby at 39 wks by LSCS for nonprogress of labor [Figure 1].

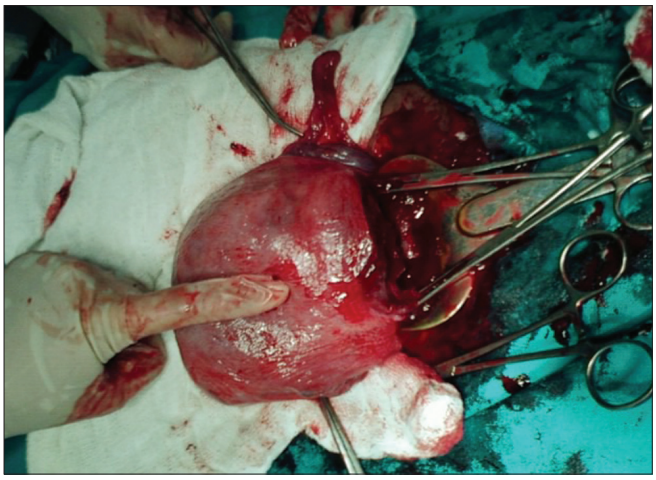

Figure 1: Right salpingectomy done uterus at the time of ISCS

DISCUSSION

Heterotopic gestation is defined as the coexistence of uterine and extrauterine gestation commonly in the fallopian tube and uncommonly in the cervix or ovary.[1-3] Majority of the reported cases are of singleton intrauterine pregnancy. Triplet and quadruplet heterotopic gestation have also been reported, though the incidence was extremely rare pregnancy. Spontaneous heterotopic pregnancy is quite rare and the estimated incidence was 1 in 30,000 in spontaneous pregnancies, in general population a fairly estimate was 1 in 7000 pregnancies.[4,5] However, with assisted reproduction techniques, this incidence increases to 1 in 100 pregnancies. There were number of risk factors for heterotopic pregnancy, such as previous tubal damage, ectopic pregnancy and assisted reproduction technique like in vitro fertilization, gamete intrafallopian transfer, also reported with pharmacological ovulation induction.[6-8]

Intrauterine pregnancy with hemorrhagic corpus luteum can simulate heterotopic pregnancy or ectopic gestation both clinically and on sonography.[9] Bicornuate uterus with gestation in both the horns also mimic a heterotopic pregnancy. Taylor and coworkers have described a high-resolution transvaginal ultrasonography with color Doppler will be helpful as the trophoblastic tissue in the case of heterotopic pregnancy shows increased flow with significantly reduced resistance index is a important aid in the diagnosis of the heterotopic pregnancy, Heterotopic pregnancy is most likely to be missed in natural conception, unless the USG facility is available and sonologist is aware and carefully screen the tubes and the pelvis if overlooked, it may present with rupture and acute abdominal syndrome which can progress to maternal shock leading to maternal mortality.

The management of heterotopic pregnancy is laparoscopy or laparotomy for the tubal pregnancy.[10] Laparotomy may be the treatment of choice in cases with serious intra-abdominal bleeding or in patients with hemodynamic instability due to hemorrhagic shock. The survival rate of an intrauterine pregnancy with favorable outcome reported in 50-66% of cases. Our case did not have any associated factor for heterotopic pregnancy and presented with rupture of ectopic pregnancy with hemoperitoneum.

The illustrated case did not have any associated risk factor for heterotopic pregnancy and presented with rupture tubal pregnancy and hemodynamic instability due to hemoperitoneum.

CONCLUSIONS

A heterotopic pregnancy, though extremely rare, should be kept in mind even if an intrauterine pregnancy is diagnosed and can still result from natural conception, and one needs extra efforts to look for heterogenous pregnancy. The high index of suspicion is to ensure for early and timely diagnosis and management, a timely intervention can result in a successful outcome of intrauterine pregnancy.[11] and prevent tubal rupture and hemorragic shock which can be fatal.

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